

Sound Transmission Class Testing (ASTM E90)

INTRODUCTION:

This report presents the results of acoustical testing of Hilti's CFS-P PA Firestop Putty Pad. This testing was requested by Mr. Chad D. Stroike, CFPS and was completed on July 18th,2013.

This report must not be reproduced except in full with the approval of Element Materials Technology. The test results contained in this report pertain only to the specific assemblies tested and not necessarily to all similar constructions.

Element has been accredited by the U.S. Department of Commerce and the National Institute of Standards and Technology (NIST, formerly NBS) under their National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 200046-0) for conducting this test procedure. This report may not be used to claim product endorsement by NVLAP, NIST or any agency of the U.S. Government.

The results stated in this report represent only the specific construction and acoustical conditions present at the time of the test. Measurements performed in accordance with this standard on nominally identical constructions and acoustical conditions may produce different results.

TEST RESULTS SUMMARY:

	<u>STC</u>	<u>def</u>	<u>OITC</u>	
Test 4:				
Control Wall	59	28	46	
Test 2: Control Wall with 4" x 4" Open Penetrations – On each side	56	29	46	
Test 3: Control Wall with 4" x 4" Electrical Boxes on each side Sealed with Hilti's CFS-P PA Firestop Putty Pad	59	28	47	

Tabular and graphical presentations of the data are presented under "TEST RESULTS" below.

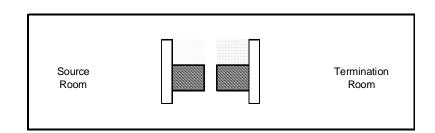


SPECIMEN DESCRIPTION:

Hilti CFS-P PA Firestop Putty Pad installed on outlet Box



Control Wall Drawing



Test #4 Control Wall with Sealed Gypsum Board Joints - Baseline Data

The control wall was constructed as two (2) Separate 2x4 wood studed walls with a 2" gap. Studs were spaced at 16" on center with R-13 insulation. A single layer of 5/8" gypsum board was attached to each side. The boards were attached to the studs with #6 x 1-5/8" sheetrock screws, spaced 12" on center. Joints were sealed.

Note: This test will give baseline data of the Control Wall prior to any modifications.

Test #5 Control Wall with 4" x 4" Open Penetrations

4" x 4" Holes were cut into each side of the Control Wall. The holes were located on opposing studs, such that electrical boxes could share the same cavity but attached to opposite studs.

Note: This test will give data of the control wall with open penetrations.

Test #6 CFS-PA P Firestop Putty Pad

Double gang steel electrical outlet boxes (2 total) were installed on opposing studs within the same stud cavity. The boxes were finished with outlets and a cover. Hilti CFS-PA P Putty Pads were then installed over the outlet boxes according to manufacturer's installation instructions.

<u>Note</u>: This test will give data of the Control Wall with the electrical boxes installed and sealed with the putty pads.



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TEST RESULTS SUMMARY:

	<u>STC</u>	<u>def</u>	<u>OITC</u>	
Test 1:				
Control Wall	51	<u> </u>	30	
Test 2: Control Wall with 4" x 4" Open Penetrations – On each side	47	25	29	
Test 3: Control Wall with 4" x 4" Electrical Boxes on each side Sealed with Hilti's CFS-P PA Firestop Putty Pad	51	27	<i>30</i>	

Tabular and graphical presentations of the data are presented under "TEST RESULTS" below.

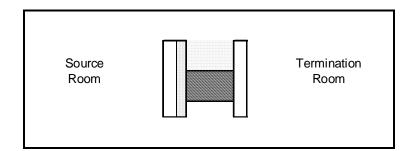


SPECIMEN DESCRIPTION:

Hilti CFS-P PA Firestop Putty Pad installed on outlet



Control Wall Drawing



Test #1 Control Wall with Sealed Gypsum Board Joints - Baseline Data

The control wall was constructed with 2x4 wood studs, spaced at 16" on center with R-13 insulation. A single layer of 5/8" gypsum board was attached to each side. Resilient Channel was used on the source room side. The boards were attached to the studs with $46 \times 1-5/8$ " sheetrock screws, spaced 12" on center. Joints were sealed.

<u>Note</u>: This test will give baseline data of the Control Wall prior to any modifications.

Test #2 Control Wall with 4" x 4" Open Penetrations

4" x 4" Holes were cut into each side of the Control Wall. The holes were located on opposing studs, such that electrical boxes could share the same cavity but attached to opposite studs.

Note: This test will give data of the control wall with open penetrations.

Test #3 CFS-PA P Firestop Putty Pad

Double gang steel electrical outlet boxes (2 total) were installed on opposing studs within the same stud cavity. The boxes were finished with outlets and a cover. Hilti CFS-PA P Putty Pads were then installed over the outlet boxes according to manufacturer's installation instructions.

<u>Note</u>: This test will give data of the Control Wall with the electrical boxes installed and sealed with the putty pads.